



FIG. 1A

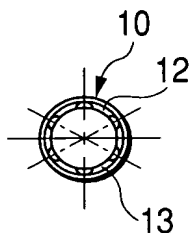


FIG. 1B

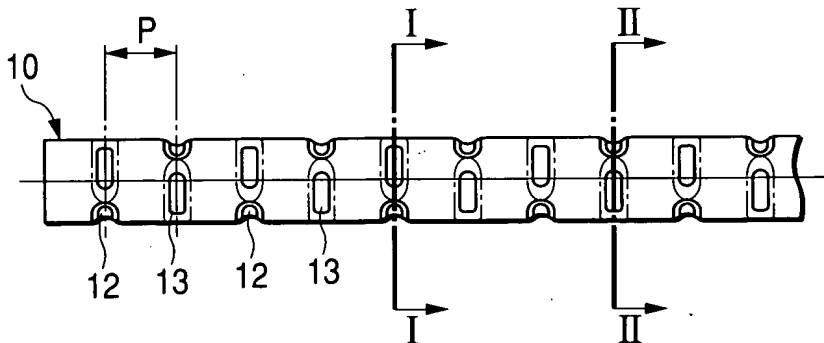


FIG. 1C

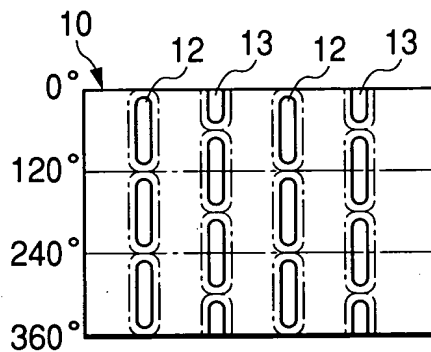
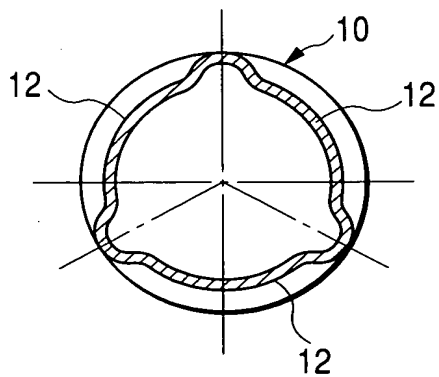
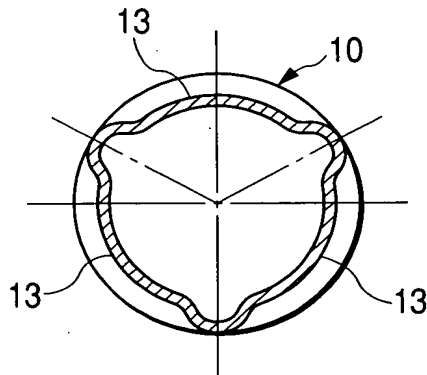


FIG. 2A



CROSS SECTION I-I

FIG. 2B



CROSS SECTION II-II

FIG. 3A

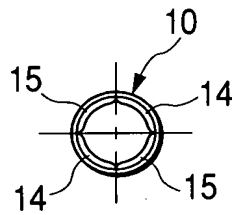


FIG. 3B

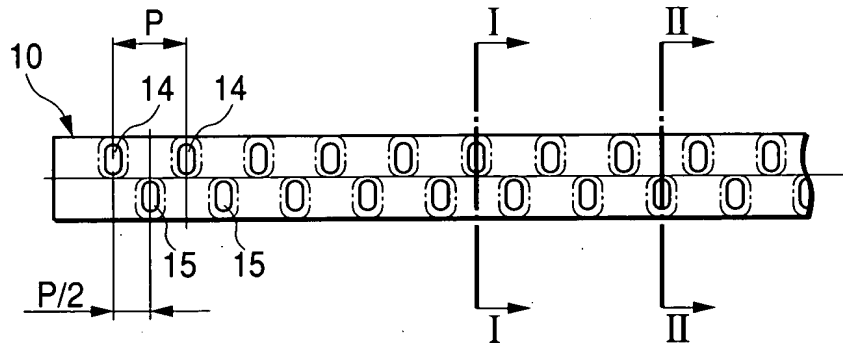


FIG. 3C

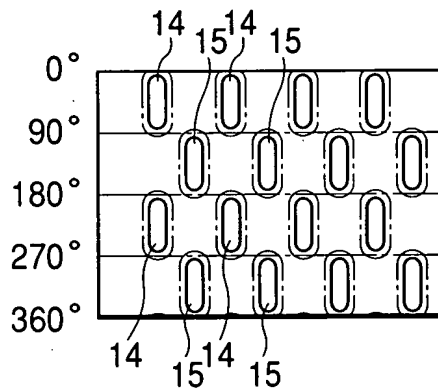
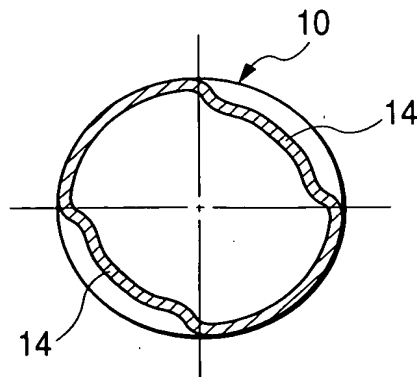
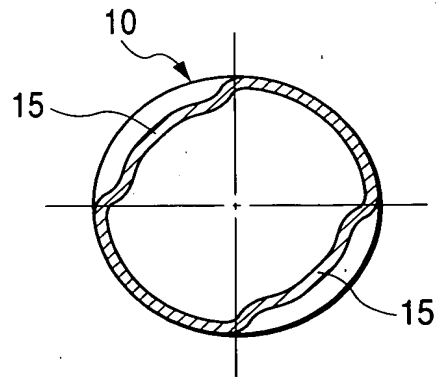


FIG. 4A



CROSS SECTION I-I

FIG. 4B



CROSS SECTION II-II

FIG. 5A

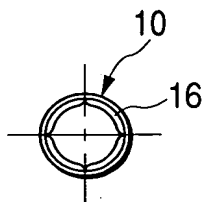


FIG. 5B

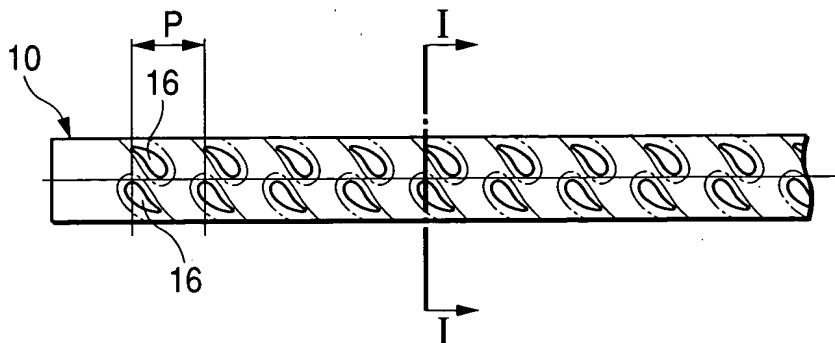


FIG. 5C

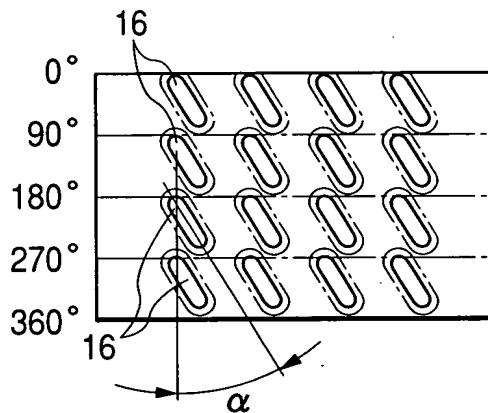
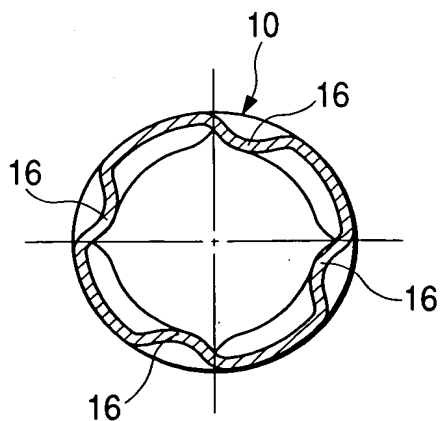


FIG. 6



CROSS SECTION I-I

FIG. 7A

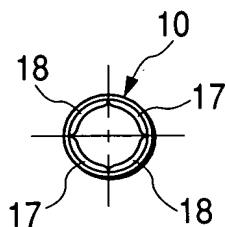


FIG. 7B

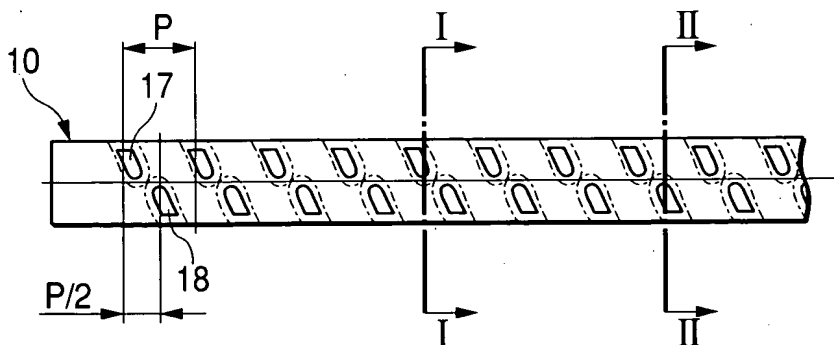


FIG. 7C

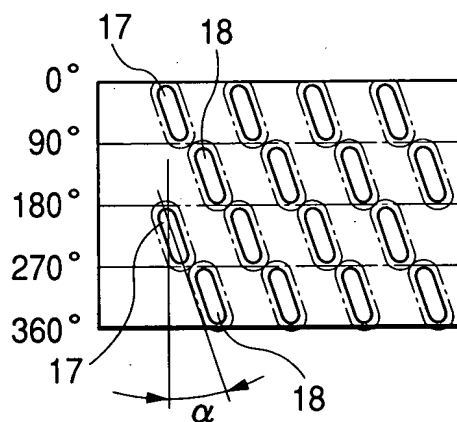
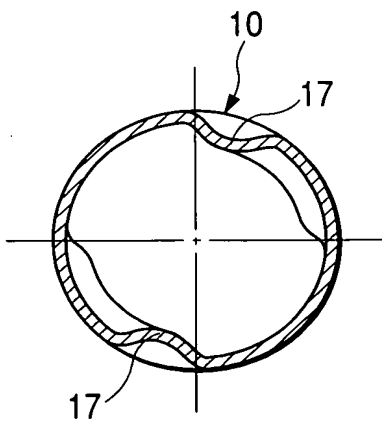
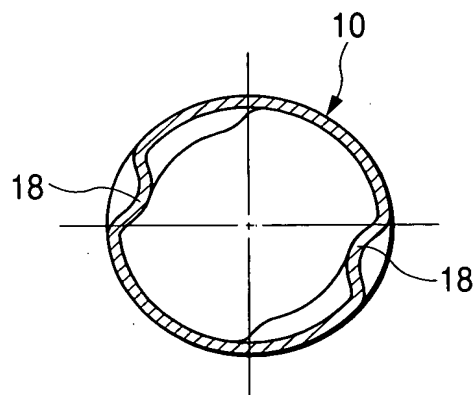


FIG. 8A



CROSS SECTION I-I

FIG. 8B



CROSS SECTION II-II

FIG. 9A

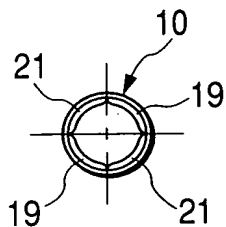


FIG. 9B

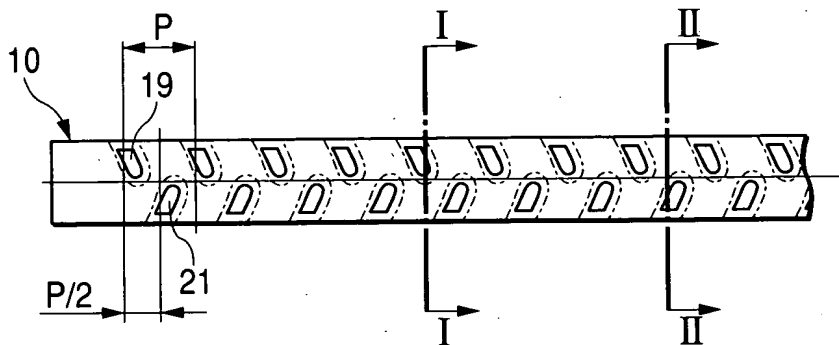


FIG. 9C

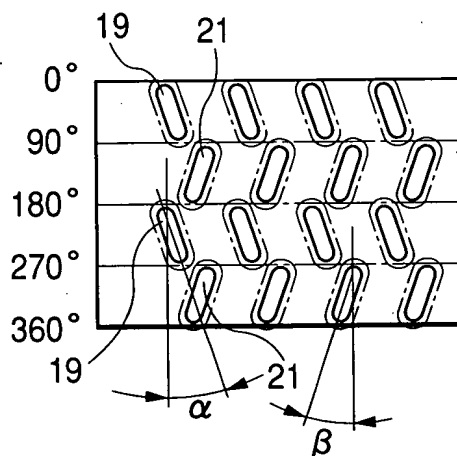
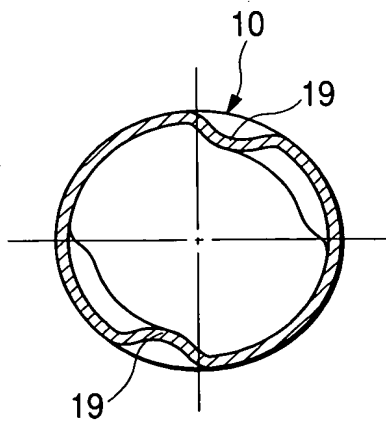
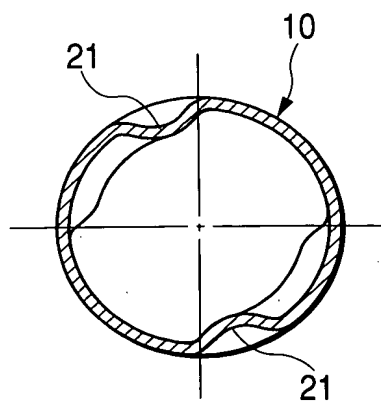


FIG. 10A



CROSS SECTION I-I

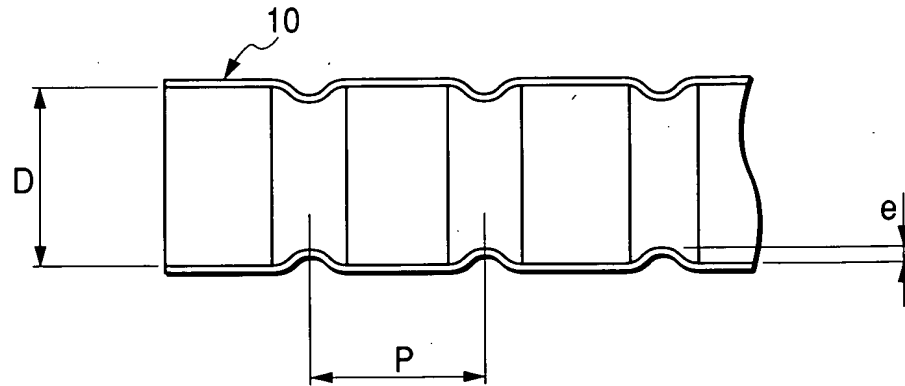
FIG. 10B



CROSS SECTION II-II

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FIG. 11



| | |
|----------------------------|---------------|
| D ; INNER DIAMETER OF TUBE | 5mm TO 30mm |
| e ; BEAD HEIGHT | 0.05D TO 0.2D |
| P ; BEAD PITCH | 6e TO 25e |

FIG. 12

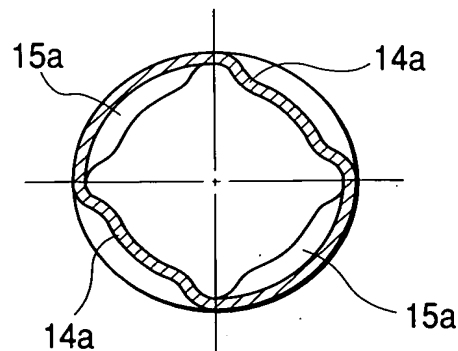


FIG. 13

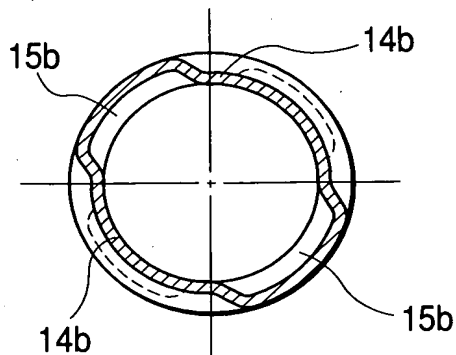


FIG. 14

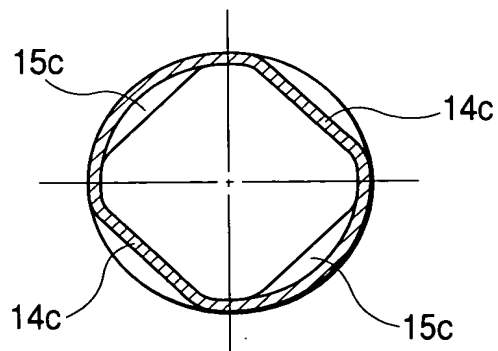


FIG. 15

HEAT RADIATING PERFORMANCE AND PRESSURE LOSS RESISTANCE INDEX OF
 TUBE OF EMBODIMENT IN THE CASE WHERE TWO - DIMENTIONAL PROTRUSION
 TUBE (RELATED ART) IS SET AT 100

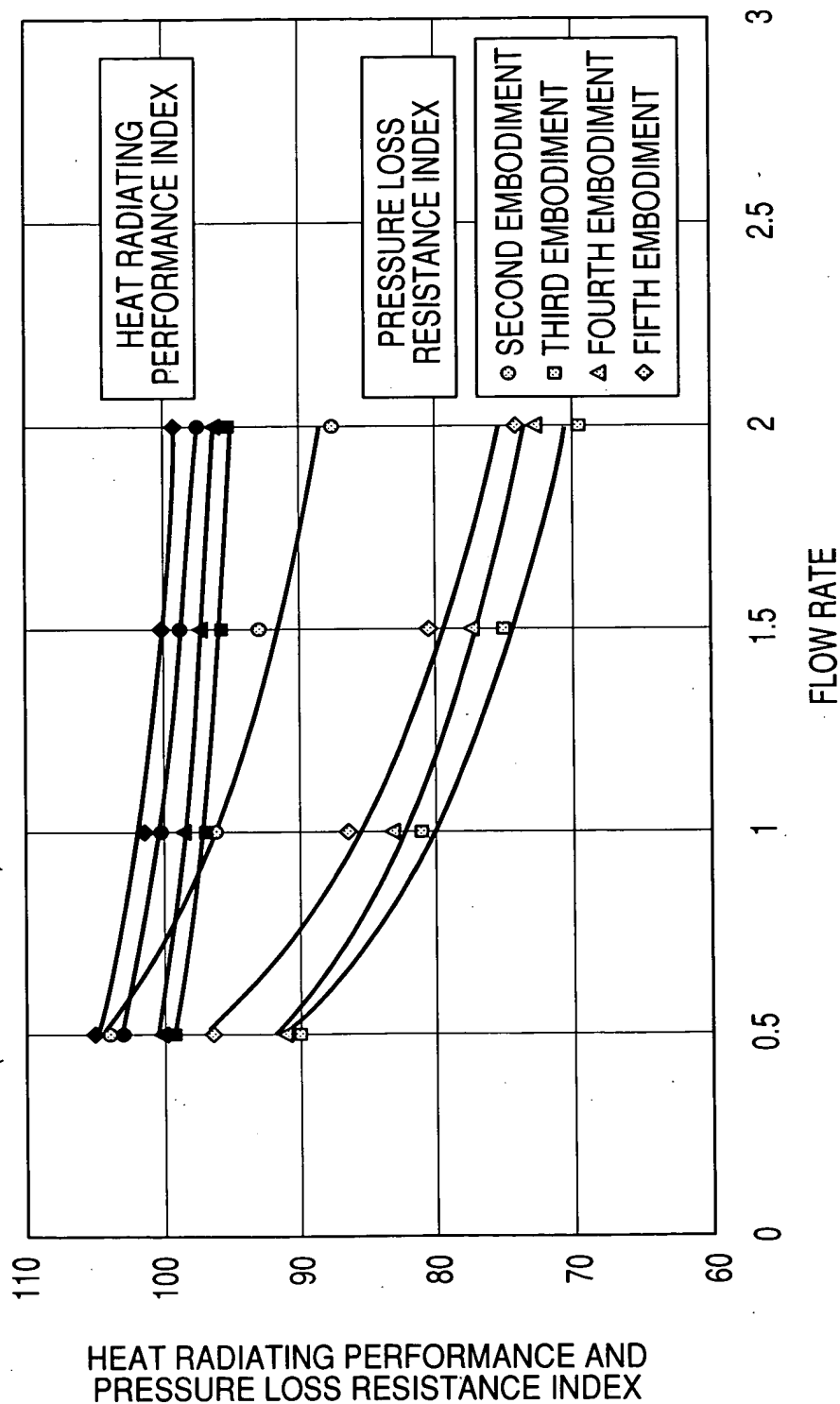


FIG. 16A

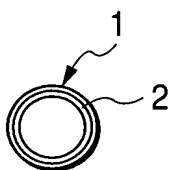


FIG. 16B

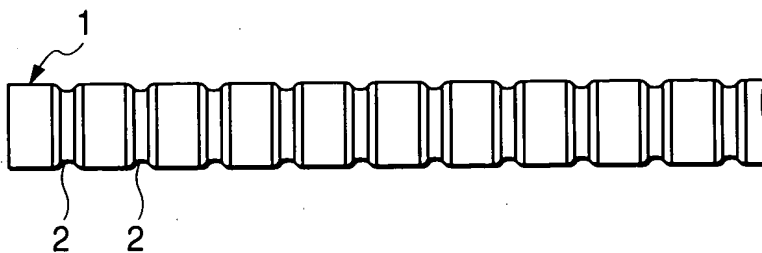


FIG. 17A

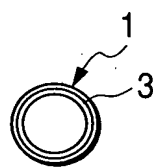


FIG. 17B

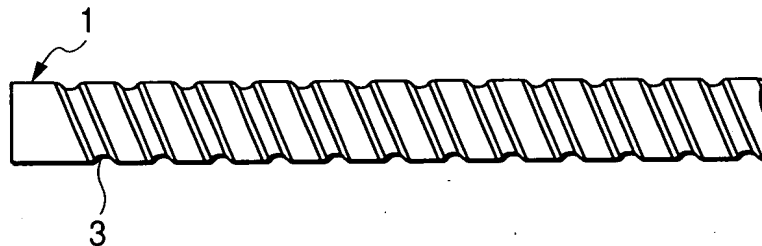


FIG. 18A

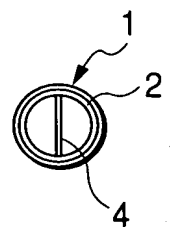


FIG. 18B

